

CLAIMS

What is claimed:

1. An apparatus capable of establishing different video sample stream processing channels between a plurality of video sample stream inputs and a video sample stream output, said apparatus comprising:
 - a multi-state routing network comprising wiring to route a video sample stream, said multi-state routing network comprising:
 - a) outputs that are coupled to the inputs of a plurality of video sample stream channel processing segments, each channel processing segment comprising at least one signal processing block;
 - b) inputs that are coupled to the outputs of said video sample stream channel processing segments;
 - c) said video sample stream inputs; and,
 - d) said video sample stream output.
2. The apparatus of claim 1 wherein one of said signal processing blocks is a deinterlacer.
3. The apparatus of claim 1 wherein one of said signal processing blocks is a frame rate converter.
4. The apparatus of claim 1 wherein one of said signal processing blocks is a scaler.

5. The apparatus of claim 1 wherein one of said signal processing blocks is a color space converter.
6. The apparatus of claim 5 wherein said color space converter is a color difference to trichromatic color space converter.
7. The apparatus of claim 6 wherein said color difference to trichromatic color space converter is a color difference to RGB color space converter.
8. The apparatus of claim 5 wherein said color space converter is a trichromatic to color difference color space converter.
9. The apparatus of claim 8 wherein said trichromatic to color difference color space converter is an RGB to color space converter.
10. The apparatus of claim 1 wherein one of said signal processing blocks is a 4:4:4 to 4:2:2 color difference converter.
11. The apparatus of claim 1 wherein one of said signal processing blocks is a 4:2:2 to 4:4:4 color difference converter.
12. A method, comprising:
 - a) routing a first digital video sample stream having a first format through a first channel processing segment, said first channel processing segment selected from amongst a plurality of channel processing segments;

- b) routing a second digital video sample stream having a second format through a second channel processing segment, said second channel processing segment selected from amongst said plurality of channel processing segments; and,
- c) routing a third digital video sample stream having a third format through said first and second channel processing segments, said first and second channel processing segments selected from amongst said plurality of channel processing segments.